Australian Bureau of Statistics

6202.0 - Labour Force, Australia, Apr 2008

Previous ISSUE Released at 11:30 AM (CANBERRA TIME) 08/05/2008

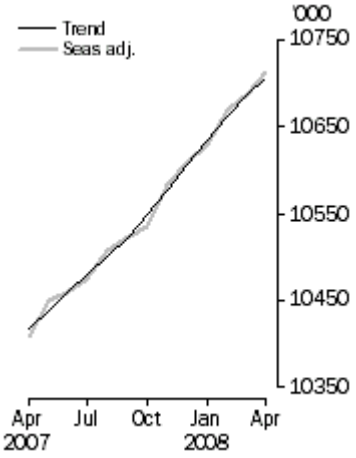
Summary

Main Features

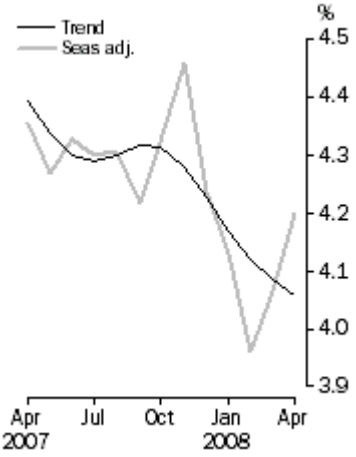
APRIL KEY FIGURES

	Mar 2008	Apr 2008	Mar 08 to Apr 08	Apr 07 to Apr 08
Trend				
Employed persons ('000)	10 686.5	10 706.1	19.6	2.8%
Unemployed persons ('000)	455.2	453.1	-2.2	-5.4%
Unemployment rate (%)	4.1	4.1	0.0pts	-0.3pts
Participation rate (%)	65.3	65.3	0.0pts	0.4pts
Seasonally Adjusted				
Employed persons ('000)	10 687.6	10 712.9	25.4	2.9%
Unemployed persons ('000)	452.9	469.8	16.9	-0.9%
Unemployment rate (%)	4.1	4.2	0.1pts	-0.2pts
Participation rate (%)	65.3	65.4	0.2pts	0.6pts

Employed Persons



Unemployment rate



APRIL KEY POINTS

TREND ESTIMATES (MONTHLY CHANGE)

- EMPLOYMENT increased to 10,706,100
- UNEMPLOYMENT decreased to 453,100
- UNEMPLOYMENT RATE remained at 4.1%

- PARTICIPATION RATE remained at 65.3%

SEASONALLY ADJUSTED ESTIMATES (MONTHLY CHANGE)

EMPLOYMENT

- increased by 25,400 to 10,712,900. Full-time employment increased by 19,000 to 7,658,000 and part-time employment increased by 6,300 to 3,054,900.

UNEMPLOYMENT

- increased by 16,900 to 469,800. The number of persons looking for full-time work increased by 17,300 to 330,500 and the number of persons looking for part-time work decreased by 400 to 139,300.

UNEMPLOYMENT RATE

- increased by 0.1 percentage point to 4.2%. The male unemployment rate increased marginally to 4.0%, and the female unemployment rate increased by 0.2 percentage points to 4.5%.

PARTICIPATION RATE

- increased by 0.2 percentage points to 65.4%.

NOTES

FORTHCOMING ISSUES

ISSUE	Release Date
May 2008	12 June 2008
June 2008	10 July 2008
July 2008	7 August 2008
August 2008	11 September 2008
September 2008	9 October 2008
October 2008	6 November 2008

IMPLEMENTATION OF NEW SAMPLE DESIGN

Following each Census of Population and Housing, the ABS selects a new sample for the Labour Force Survey. This is done to ensure that the sample continues to accurately represent the distribution of the Australian population. A new sample has recently been selected based on the 2006 Census. Detailed information about the new sample is provided in **Information Paper: Labour Force Survey Sample Design** (cat. no. 6269.0), which was

released on 28 November 2007.

In order to reduce the potential impact of the change in sample on labour force statistics, the new sample is being introduced progressively, taking advantage of the existing rotation scheme. Using this scheme, the private dwelling sample in larger urban centres and less remote areas, representing approximately four-fifths of the total sample, will be phased in over the period November 2007 to June 2008. Within these areas, one-eighth of the new sample will be introduced each month under existing sample rotation arrangements.

The rest of the sample (in remote, less populated areas and for non-private dwellings) was introduced in two stages. The first stage, which occurred in March, was the introduction of this sample in New South Wales, Western Australia, Northern Territory and Australian Capital Territory. The second stage, which occurred in April, was the introduction of this sample in Victoria, Queensland, South Australia and Tasmania.

Due to the increased level of sample introduced this month there may be increased volatility in the estimates for Victoria, Queensland, South Australia and Tasmania.

INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070 or Rebecca Cash on Canberra (02) 6252 6525.

Forthcoming Changes

FORTHCOMING CHANGES

BACKGROUND

Following the completion of the 5 yearly Census of Population and Housing, the ABS reviews the LFS sample design. The review ensures the survey accurately reflects the geographical distribution of the Australian population, and remains efficient and cost effective.

The outcome of the review based on 2006 Census data is being implemented over the period November 2007 to June 2008. In developing the 2006 sample design, the decision was made to achieve cost savings by taking advantage of the sampling efficiencies related to the introduction of composite estimation. This enabled an 11% reduction in the LFS sample with only minor reductions in data quality relative to the previous design. Full details of the 2006 sample design are presented in **Information Paper: Labour Force Survey Sample Design** (cat no. 6269.0).

RECENT DEVELOPMENTS

The ABS is facing a tight budget situation in 2008-09, which has led to a range of reductions in the ABS work program. One of the reductions is that from July 2008 the sample size of the LFS will be reduced by 24% when compared with the June 2008 sample being implemented under the 2006 sample design. The ABS is implementing this sample

reduction in such a way that the sample can be easily increased again in the future should the ABS funding position change.

IMPLEMENTATION

The ABS will fully implement the sample reduction in July 2008. Implementing the full reduction in a single month will mean less common sample between June and July, and hence the standard error on movements will be slightly larger than if the reduction was phased-in. However, in order to maximise the savings in 2008/09 the reduced sample needs to be fully implemented from July 2008.

SAMPLE SIZE

Table 1 presents the expected number of persons in the LFS sample for June 2008 under the 2006 sample design, and the proposed LFS sample for July 2008 following the sample reduction. It should be noted that the sample size will gradually increase between sample redesigns due to population growth prior to the next sample redesign following the 2011 Census.

Table 1. Estimated Fully Responding Person Records

	June 2008	July 2008
New South Wales	12 900	9 600
Victoria	11 500	8 700
Queensland	9 600	7 300
South Australia	6 400	4 900
Western Australia	6 200	4 600
Tasmania	3 500	2 700
Northern Territory	2 100	1 700
Australian Capital Territory	2 200	1 600
Australia	**54 400**	**41 100**

QUALITY OF ESTIMATES

The new sample, while smaller, will still be representative, with selections made in all parts of Australia. There will be increased volatility in the estimates, particularly the original and seasonally adjusted estimates, but this volatility will be random. Given the increased volatility in the original and seasonally adjusted estimates, the ABS would continue to encourage users to focus on trend estimates as the increased volatility seen in the original and seasonally adjusted estimates will be dampened through the 'trending' process.

The most common way to quantify the volatility is to examine the relative standard errors (RSEs). Table 2 below shows the target RSEs following the 2006 sample design and introduction of composite estimation and the target RSEs for the sample from July 2008.

Table 2. LFS Relative Standard Errors

	Employment RSE		Unemployment RSE	
	2006 Target RSE(a) %	2008 Target RSE %	2006 Target RSE(a) %	2008 Target RSE %
New South Wales	0.8	0.9	5.0	5.7

Victoria	0.8	0.9	5.3	6.1
Queensland	0.9	1.0	5.7	6.6
South Australia	1.1	1.3	6.8	7.7
Western Australia	1.0	1.1	7.1	8.1
Tasmania	1.5	1.7	8.3	9.5
Northern Territory	2.6	3.0	13.4	15.1
Australian Capital Territory	1.3	1.5	13.9	16.0
Australia	**0.4**	**0.4**	**2.6**	**2.9**

(a) Due to recent improvements, the 2006 RSEs for the NT and WA and also for unemployment in SA differ from those published in the information paper Labour Force Survey Sample Design, Australia. (cat. no. 6269.0).

Overall, the RSEs for estimates of employment and unemployment at the national, state and territory level are expected to be approximately 15% higher than those expected from the 2006 sample design. The impact of the increased RSEs is best demonstrated by consideration of the confidence intervals surrounding the respective estimates. By way of example, say the estimate for employment is 10,000,000. Under the 2006 design, there would be 19 chances in 20 that the real value falls within the range 9,932,600 to 10,067,400. With the reduction in sample from July 2008 that range will increase to 9,922,800 to 10,077,200. Similarly for unemployment, if the estimate is 500,000 then under the 2006 design, there would be 19 chances in 20 that the real value falls within the range 474,000 to 526,000. With the reduction in sample that range will increase to 470,200 to 529,800.

LFS PRODUCTS

Key monthly estimates from the LFS are published in **Labour Force, Australia** (cat. no. 6202.0). As well, there are a range of other products presenting detailed estimates from the LFS, which are available at the ABS website, www.abs.gov.au.

The sample reduction will also increase the standard error on the detailed estimates in these products by approximately 15%. Some of the estimates in these products, such as detailed industry estimates for small states and territories, have always had high standard errors and the sample reduction will increase this number.

To assist users in understanding the quality of the estimates published, the ABS will be producing a new standard error model for the LFS. This model will be used to populate the standard error tables in this publication and to annotate those estimates in our products with an RSE of 25% or higher. Estimates with an RSE of 25% or higher should be used with caution. This new model will also be incorporated into the spreadsheet **Labour Force Survey Standard Errors, Datacube** (cat. no. 6298.0.55.001) to allow users to calculate the standard error for any LFS estimate.

ASSOCIATED SURVEYS

In addition to impacting on the LFS, the sample reduction will also affect the supplementary surveys which are conducted on part of the LFS sample and cover a range of different topics. Due to the infrequent nature of topics in the supplementary surveys, they do not benefit from the efficiency gains associated with composite estimation. As a result the sample reduction associated with the 2006 design is resulting in increased standard errors for these estimates. The further sample reduction to be introduced in July 2008 will increase the standard errors further. In combination, the sample reductions are expected to increase the standard error for estimates from supplementary topics by approximately 22% relative to

the 2001 design. The level of disaggregation of estimates possible from these topics will be assessed as each topic is prepared for release. However, it is likely that the level of disaggregation will need to be reduced, especially for topics which relate to small sub populations.

The ABS also conducts a Multi Purpose Household Survey on part of the LFS sample each year. The impact of the sample reduction on the MPHS will not be as large as for the LFS or the supplementary topics as the MPHS sample size will be kept approximately the same after July 2008. Under the 2001 sample design, the MPHS sampled one-third of those dwellings in the LFS for the last month, which achieved a sample of 13,500 dwellings per year. Following the sample reduction, the proposal is to increase the proportion of dwellings sampled to 50% of those in the LFS for the last month. This proportion is expected to achieve a MPHS sample size of 13,000 dwellings per year.

About this Release

Summary results of the monthly Labour Force Survey containing estimates of employed and unemployed persons classified by sex, full-time/part-time status, states and territories and some age groups; and persons not in the labour force.

6202.0 was published as Labour Force, Australia, Preliminary until March 2003. As the publication had provided final summary data for a number of years to that point, the misleading qualification preliminary was removed from the April 2003 issue onwards.

Explanatory Notes

Explanatory Notes

EXPLANATORY NOTES

INTRODUCTION

1 This publication contains estimates of the civilian labour force derived from the Labour Force Survey component of the Monthly Population Survey. The full time series for estimates from this publication are also available electronically - see **Labour Force, Australia, Spreadsheets** (cat. no. 6202.0.55.001). More detailed estimates are released one week after this publication in various electronic formats - see **Labour Force, Australia, Detailed - Electronic Delivery** (cat. no. 6291.0.55.001) and **Labour Force, Australia, Detailed, Quarterly** (cat. no. 6291.0.55.003).

CONCEPTS, SOURCES AND METHODS

2 The conceptual framework used in Australia’s Labour Force Survey aligns closely with the standards and guidelines set out in Resolutions of International Conferences of Labour Statisticians. Descriptions of the underlying concepts and structure of Australia's labour

force statistics, and the sources and methods used in compiling the estimates, are presented in **Labour Statistics: Concepts, Sources and Methods** (cat. no. 6102.0.55.001) which is available on the ABS website <https://www.abs.gov.au> (Methods, Classifications, Concepts & Standards).

LABOUR FORCE SURVEY

3 The Labour Force Survey is based on a multi-stage area sample of private dwellings (currently about 30,000 houses, flats, etc.) and a list sample of non-private dwellings (hotels, motels, etc.), and covers about 0.45% of the population of Australia. Information is obtained from the occupants of selected dwellings by specially trained interviewers.

4 The information is collected using computer-assisted interviewing (CAI), whereby responses are recorded directly onto an electronic questionnaire on a notebook computer. The CAI method was progressively implemented from October 2003 to August 2004, replacing the 'pen and paper' method previously used.

5 Households selected for the Labour Force Survey are interviewed each month for eight months, with one-eighth of the sample being replaced each month. The first interview is conducted face-to-face. Subsequent interviews are conducted by telephone (if acceptable to the respondent).

6 The interviews are generally conducted during the two weeks beginning on the Monday between the 6th and 12th of each month. The information obtained relates to the week before the interview (i.e. the reference week). Each year, to deal with operational difficulties involved with collecting and processing the Labour Force Survey around the Christmas and New Year holiday period, interviews for December start four weeks after November interviews start, and January interviews start five weeks after December interviews start. As a result, January interviewing may commence as early as the 8th or as late as the 14th, depending on the year. Occasionally, circumstances that present significant operational difficulties for survey collection can result in a change to the normal pattern for the start of interviewing.

7 Estimates from the Labour Force Survey are published first in this publication 31 days after the commencement of interviews for that month, with the exception of estimates for each December which are published 38 days after the commencement of interviews.

SCOPE OF SURVEY

8 The Labour Force Survey includes all persons aged 15 years and over except members of the permanent defence forces, certain diplomatic personnel of overseas governments customarily excluded from census and estimated population counts, overseas residents in Australia, and members of non-Australian defence forces (and their dependants) stationed in Australia.

COVERAGE

9 In the Labour Force Survey, coverage rules are applied which aim to ensure that each person is associated with only one dwelling, and hence has only one chance of selection. The coverage rules are necessarily a balance between theoretical and operational considerations. Nevertheless, the chance of a person being enumerated at two separate dwellings in the survey is considered to be negligible.

POPULATION BENCHMARKS

10 Labour Force Survey estimates are calculated in such a way as to add up to independent estimates of the civilian population aged 15 years and over (population benchmarks). These population benchmarks are projections of the most recently released quarterly Estimated Resident Population (ERP) data. For information on the methodology used to produce the ERP see **Australian Demographic Statistics Quarterly** (cat. no. 3101.0)**.** To create the population benchmarks for the Labour Force Survey, the most recently released quarterly ERP estimates are projected forward one quarter past the period for which they are required. The projection is based on the historical pattern of each population component - births, deaths, interstate migration and overseas migration. By projecting one quarter past that needed for the current population benchmarks, demographic changes are smoothed in, thereby making them less noticeable in the population benchmarks.

11 The ERP series are revised annually in the March quarter issue of **Australian Demographic Statistics Quarterly** (cat. no. 3101.0), released in September each year, to incorporate more up to date information available for the population components. The revised ERP estimates are used to update the quarterly population projections used in creating the Labour Force Survey population benchmarks. Benchmarks already used in producing Labour Force Survey estimates are not updated. A process of smoothing is used in the creation of population benchmarks to reduce the effect of these annual revisions to ERP estimates on the Labour Force Survey population benchmarks.

12 Every five years the ERP series are revised to incorporate additional information available from the latest Census of Population and Housing. Following the incorporation of Census information, the ERP series prior to the latest Census are final and subject to no further revision. Labour Force Survey population benchmarks, and the estimates, are revised following this 5-yearly revision in the ERP. From the February 2004 issue of this publication, labour force estimates have been compiled using population benchmarks based on the results of the 2001 Census of Population and Housing. Revisions were made in that issue to historical labour force estimates from January 1999 to January 2004.

ESTIMATION METHOD

13 The estimation method used in the Labour Force Survey is Composite Estimation, which was introduced in May 2007. Composite Estimation combines data collected in the previous six months with current month's data to produce the current month's estimates, thereby exploiting the high correlation between overlapping samples across months in the Labour Force Survey. The Composite Estimator combines the previous and current months' data by applying different factors according to length of time in the survey. After these factors are applied, the seven months of data are weighted to align with current month population benchmarks. For details see **Information Paper: Forthcoming Changes to Labour Force Statistics, 2007** (cat. no. 6292.0).

COMPARABILITY OF SERIES

14 From April 1986, the definition of employed persons was changed to include persons who worked without pay between 1 and 14 hours per week in a family business or on a farm (i.e. contributing family workers). For further information, see paragraphs 36 and 37 of the Explanatory Notes to the February 1987 issue of **Labour Force, Australia** (cat. no. 6203.0).

15 The ABS introduced telephone interviewing into the Labour Force Survey in August 1996. Implementation was phased in for each new sample group from August 1996 to February 1997. During the period of implementation, the new method produced different estimates than would have been obtained under the old methodology. The effect dissipated over the final months of implementation and was no longer discernible from February 1997. The estimates for February 1997 and onwards are directly comparable to estimates for periods prior to August 1996. For further details, see the feature article in the June 1997 issue of **Labour Force, Australia** (cat. no. 6203.0).

16 From April 2001 the Labour Force Survey has been conducted using a redesigned questionnaire containing additional data items and some minor definitional changes. The definition of unemployed persons was changed to include all persons who were waiting to start work and were available to start in the reference week. This change was introduced in February 2004, when historical unit record data were revised from April 2001 to January 2004. This revision created a small trend break at April 2001 in unemployed persons and unemployment rate series. For further details, see **Information Paper: Forthcoming Changes to Labour Force Statistics** (cat. no. 6292.0), released in December 2003.

17 Core labour force series were revised in April 2001 for the period April 1986 to March 2001 for the remaining definitional changes introduced with the redesigned questionnaire, to reduce the impact of the changes on labour force series. For further details, see **Information Paper: Implementing the Redesigned Labour Force Survey Questionnaire** (cat. no. 6295.0) and **Information Paper: Questionnaires Used in the Labour Force Survey** (cat. no. 6232.0).

18 In May 2007, an improved method of estimation, known as composite estimation, was introduced into the Labour Force Survey. In introducing this change the ABS revised unit record data from April 2001 to April 2007 based on the new estimation method. While estimates for periods prior to April 2001 are unrevised and were compiled using a different estimation method, no trend break was identified in the employed persons series. Also, no change was identified in the trend breaks in the unemployed persons and unemployment rate series which arose with the introduction of a redesigned survey form in April 2001 (as noted above in paragraph 16). For further details, see **Information Paper: Forthcoming Changes to Labour Force Statistics, 2007** (cat. no. 6292.0), released on 21 May 2007.

SURVEY SAMPLE REDESIGN

19 The Labour Force Survey sample has been reselected using information collected in the 2006 Census of Population and Housing.

20 The bulk of the new sample will be phased in over the period November 2007 to June 2008, with one-eighth of this portion of the sample being introduced every month. The remainder of the sample (about 20% of the total), which covers less settled areas of Australia and non-private dwellings will be rotated in full for New South Wales, Western Australia, Northern Territory and Australian Capital Territory in March 2008, and for Victoria, Queensland, South Australia and Tasmania in April 2008. Such a pattern of implementation means that any changes to labour force estimates due to differences between the two samples, or any other influences, will be spread over the eight months.

21 For further details, see **Information Paper: Labour Force Survey Sample Design** (cat. no. 6269.0), released on 28 November 2007.

RELIABILITY OF ESTIMATES

22 Two types of error are possible in an estimate based on a sample survey: sampling error and non-sampling error.

23 Sampling error occurs because a sample, rather than the entire population, is surveyed. One measure of the likely difference resulting from not including all dwellings in the survey is given by the standard error. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all dwellings had been included in the survey, and about nineteen chances in twenty that the difference will be less than two standard errors. Standard errors of key estimates for the latest month and of movements since the previous month of these estimates are shown on pages 28 and 29. Standard errors for other estimates and other movements may be calculated by using the spreadsheet contained in **Labour Force Survey Standard Errors, Data Cube** (cat. no. 6298.0.55.001) which is available free of charge on the ABS website <https://www.abs.gov.au> (Statistics).

24 Non-sampling error arises from inaccuracies in collecting, recording and processing the data. Every effort is made to minimise reporting error by the careful design of questionnaires, intensive training and supervision of interviewers, and efficient data processing procedures. Non-sampling error also arises because information cannot be obtained from all persons selected in the survey. The Labour Force Survey receives a high level of co-operation from individuals in selected dwellings, with the average response rate over the last year being 97%. See Glossary for definition of response rate.

SEASONAL ADJUSTMENT AND TREND ESTIMATION

25 Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences on the series can be more clearly recognised. Seasonal adjustment does not aim to remove the irregular or non-seasonal influences which may be present in any particular month. This means that month-to-month movements of the seasonally adjusted estimates may not be reliable indicators of trend behaviour.

26 The Labour Force Survey uses the concurrent seasonal adjustment method to derive seasonal factors. Concurrent seasonal adjustment uses data up to the current month to estimate seasonal factors for the current and all previous months. This process can result in revisions each month to estimates for earlier periods. However, in most instances, the only noticeable revisions will be to the seasonally adjusted estimates for the previous month and one year prior to the current month.

27 Seasonal adjustment is able to remove the effect of events which occur at the same time in the survey every year. However, there are some events, like holidays, which are not always at the same time in the survey cycle or which are not at the same time across Australia. The effects of these types of events on Labour Force Survey estimates cannot in all cases be removed, because the pattern of their effects cannot be determined. However, two events which are adjusted for in the seasonally adjusted series are the January interview start date and the timing of Easter.

28 For more information on concurrent seasonal adjustment and survey proximity to holiday periods, see **Information Paper: Forthcoming Changes to Labour Force Statistics** (cat. no. 6292.0) released in December 2003.

29 While seasonal factors for the complete time series are estimated each month, they will continue to be reviewed annually at a more detailed level to take into account each

additional year's original data. This annual review will not normally result in significant changes to published estimates. The review is usually conducted in February each year with the results released in the February issue of this publication.

30 The smoothing of seasonally adjusted series to produce 'trend' series reduces the impact of the irregular component of the seasonally adjusted series. These trend estimates are derived by applying a 13-term Henderson-weighted moving average to all months except the last six. The last six monthly trend estimates are obtained by applying surrogates of the Henderson average to the seasonally adjusted series. Trend estimates are used to analyse the underlying behaviour of a series over time.

31 While this smoothing technique enables estimates to be produced for the latest month, it does result in revisions in addition to those caused by the revision of seasonally adjusted estimates. Generally, revisions due to the use of surrogates of the Henderson average become smaller, and after three months have a negligible impact on the series.

32 Trend estimates are published for the Northern Territory in table 10 and for the Australian Capital Territory in table 11. Unadjusted series for the two territories have shown, historically, a high degree of variability, which can lead to considerable revisions to the seasonally adjusted estimates each month when seasonal factors are estimated. For this reason, seasonally adjusted estimates are not currently published for the two Territories. In addition, caution should be exercised in the interpretation of trend estimates for the two territories, particularly for the three most recent months, where revisions may be relatively large.

33 For further information, see **A Guide to Interpreting Time Series - Monitoring Trends** (cat. no. 1349.0) or contact the Assistant Director, Time Series Analysis on (02) 6252 6345.

RELATED PUBLICATIONS

34 Users may also wish to refer to **Australian Labour Market Statistics** (cat. no. 6105.0). This publication contains additional tables and a detailed list of related publications. For further information about this publication, please contact the Assistant Director, Labour Market Statistics on (02) 6252 7636.

35 ABS Information about the labour market can be found on the Labour theme page on the ABS website <https://www.abs.gov.au>(Themes), or from ABS Bookshops.

36 Information about current publications and other products released by the ABS is available from the statistics page on the ABS website. The ABS also issues a daily Release Advice on the website (Future Releases) which details products to be released in the week ahead.

DATA AVAILABLE ON REQUEST

37 As well as the statistics included in this and related publications, the ABS may have other relevant data available. Inquiries should be made to the Labour Force contact officer on (02) 6252 6525 or to any ABS office.

EFFECTS OF ROUNDING

38 Estimates have been rounded and discrepancies may occur between sums of the component items and totals.

39 Estimates of movement shown in this publication are obtained by taking the difference of unrounded estimates. The movement estimate is then rounded to one decimal place. Therefore where a discrepancy occurs between the reported movement and the difference of the rounded estimates, the reported movement will be more accurate.

SYMBOLS AND ABBREVIATIONS

40 SYMBOLS AND ABBREVIATIONS

'000 thousands
ABS Australian Bureau of Statistics
CAI computer assisted interviewing
cat. no. catalogue number
ERP estimated resident population
f/t full-time
LFS Labour Force Survey
p/t part-time
pts percentage points
Seas adj. seasonally adjusted
TAFE Technical and Further Education

Glossary

GLOSSARY

Actively looking for work

Includes writing, telephoning or applying in person to an employer for work; answering an advertisement for a job; checking factory noticeboards or the touchscreens at the Centrelink offices; being registered with Centrelink as a jobseeker; checking or registering with any other employment agency; advertising or tendering for work; and contacting friends or relatives.

Attending full-time education

Persons aged 15-24 years enrolled at secondary or high school or enrolled as a full-time student at a Technical and Further Education (TAFE) college, university, or other educational institution in the reference week.

Attending school

Persons aged 15-19 years enrolled at secondary or high school in the reference week.

Attending tertiary educational institution full time

Persons aged 15-24 years enrolled full time at a TAFE college, university, or other educational institution in the reference week, except those persons aged 15-19 years who were still attending school.

Civilian population aged 15 years and over

All usual residents of Australia aged 15 years and over except members of the permanent defence forces, certain diplomatic personnel of overseas governments customarily excluded from census and estimated population counts, overseas residents in Australia, and members of non-Australian defence forces (and their dependants) stationed in Australia.

Composite Estimation

The estimation methodology used in the Labour Force Survey. Composite Estimation uses sample responses from nearby months as well as from the reference month to derive estimates for the reference month. This approach achieves gains in efficiency by exploiting the high similarity between the responses provided by the same respondent in previous months. For details see **Information Paper: Forthcoming Changes to Labour Force Statistics, 2007** (cat. no. 6292.0).

Employed

All persons aged 15 years and over who, during the reference week:

- worked for one hour or more for pay, profit, commission or payment in kind in a job or business, or on a farm (comprising employees, employers and own account workers); or
- worked for one hour or more without pay in a family business or on a farm (i.e. contributing family workers); or
- were employees who had a job but were not at work and were:
    - away from work for less than four weeks up to the end of the reference week; or
    - away from work for more than four weeks up to the end of the reference week and received pay for some or all of the four week period to the end of the reference week; or
    - away from work as a standard work or shift arrangement; or
    - on strike or locked out; or
    - on workers' compensation and expected to return to their job; or
- were employers or own account workers, who had a job, business or farm, but were not at work.

Employment to population ratio

For any group, the number of employed persons expressed as a percentage of the civilian population in the same group.

Full-time workers

Employed persons who usually worked 35 hours or more a week (in all jobs) and those who, although usually working less than 35 hours a week, worked 35 hours or more during the reference week.

Labour force

For any group, persons who were employed or unemployed, as defined.

Labour force status

A classification of the civilian population aged 15 years and over into employed, unemployed or not in the labour force, as defined. The definitions conform closely to the international standard definitions adopted by the International Conferences of Labour Statisticians.

Not in labour force

Persons who were not in the categories employed or unemployed as defined.

Participation rate

For any group, the labour force expressed as a percentage of the civilian population aged 15 years and over in the same group.

Part-time workers

Employed persons who usually worked less than 35 hours a week (in all jobs) and either did so during the reference week, or were not at work in the reference week.

Response rate

The number of fully responding dwellings expressed as a percentage of the total number of dwellings excluding sample loss. Examples of sample loss include: dwellings where all persons are out of scope and/or coverage; vacant dwellings; dwellings under construction; dwellings converted to non-dwellings; derelict dwellings; and demolished dwellings.

Seasonally adjusted series

A time series of estimates with the estimated effects of normal seasonal variation removed. See Explanatory Notes 25 to 29 for more detail.

Trend series

A smoothed seasonally adjusted series of estimates. See Explanatory Notes 30 to 33 for more detail.

Unemployed

Persons aged 15 years and over who were not employed during the reference week, and:

- had actively looked for full-time or part-time work at any time in the four weeks up to the end of the reference week and were available for work in the reference week; or
- were waiting to start a new job within four weeks from the end of the reference week and could have started in the reference week if the job had been available then.

Unemployed looking for full-time work

Unemployed persons who:

- actively looked for full-time work; or
- were waiting to start a new full-time job.

Unemployed looking for part-time work

Unemployed persons who:

- actively looked for part-time work only; or
- were waiting to start a new part-time job.

Unemployment rate

For any group, the number of unemployed persons expressed as a percentage of the labour force in the same group.

Unemployment to population ratio

For any group, the number of unemployed persons expressed as a percentage of the civilian population in the same group.

Quality Declaration - Summary

INSTITUTIONAL ENVIRONMENT

Labour Force statistics are compiled from the Labour Force Survey which is conducted each month throughout Australia as part of the Australian Bureau of Statistics (ABS) household survey program. For information on the institutional environment of the ABS, including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see ABS Institutional Environment.

RELEVANCE

The Labour Force Survey provides monthly information about the labour market activity of Australia's resident civilian population aged 15 years and over. The Labour Force Survey is designed to primarily provide estimates of employment and unemployment for the whole of Australia and, secondarily, for each state and territory.

TIMELINESS

The Labour Force Survey enumeration begins on the Monday between the 6th and 12th of the month, except for the Christmas and New Year holiday period. In December enumerations starts between the 4th and 10th (4 weeks after November enumeration begins). In January enumeration starts between the 8th and 14th (5 weeks after December enumeration begins).

Key estimates from the Labour Force Survey are published in two stages. *Labour Force, Australia* (cat. no. 6202.0) and *Labour Force, Australia, Spreadsheets* (cat. no. 6202.0.55.001) are the first release. These data are released 31 days after the commencement of enumeration for the month, with the exception of estimates for December which are published 38 days after the commencement of enumeration.

Detailed data which were not part of the first release from the Labour Force Survey are

published in *Labour Force, Australia, Detailed - Electronic Delivery* (cat. no. 6291.0.55.001) and *Labour Force, Australia, Detailed, Quarterly* (cat. no. 6291.0.55.003), which are released one week after the initial release.

ACCURACY

The Labour Force Survey is based on a sample of private dwellings (approximately 30,000 houses, flats etc) and non-private dwellings, such as hotels and motels. The sample covers about 0.45% of the Australian Population. The Labour Force Survey is designed primarily to provide estimates of key labour force statistics for the whole of Australia and, secondarily, for each state and territory.

Two types of error are possible in an estimate based on a sample survey: non-sampling error and sampling error.

Non-sampling error arises from inaccuracies in collecting, recording and processing the data. Every effort is made to minimise reporting error by the careful design of questionnaires, intensive training and supervision of interviewers, and efficient data processing procedures. Non-sampling error also arises because information cannot be obtained from all persons selected in the survey. The Labour Force Survey receives a high level of cooperation, with an average response rate for the last year being 97%.

Sampling error occurs because a sample, rather than the entire population, is surveyed. One measure of the likely difference resulting from not including all dwellings in the survey is given by the standard error. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all dwellings had been included in the survey, and about nineteen chances in twenty that the difference will be less than two standard errors.

Standard errors of key estimates and movements since the previous month are available in *Labour Force, Australia* (cat. no. 6202.0). The standard error of other estimates and movements may be calculated by using the spreadsheet contained in *Labour Force Survey Standard Errors, Data Cube* (cat. no. 6298.0).

COHERENCE

The ABS has been conducting the Labour Force Survey each month since February 1978. While seeking to provide a high degree of consistency and comparability over time by minimising changes to the survey, sound survey practice requires careful and continuing maintenance and development to maintain the integrity of the data and the efficiency of the collection.

The changes which have been made to the Labour Force Survey have included changes in sampling methods, estimation methods, concepts, data item definitions, classifications, and time series analysis techniques. In introducing these changes the ABS has generally revised previous estimates to ensure consistency and coherence with current estimates. For a full list of changes made to the Labour Force Survey see *Labour Statistics: Concepts, Sources and Methods* (cat. no. 6102.0.55.001) Table 20.2.

INTERPRETABILITY

The key estimates from the Labour Force Survey are available as original, seasonally adjusted and trend series. Seasonal adjustment is a means of removing the effects of normal seasonal variation from the series so other influences on the series can be more clearly recognised. Seasonal adjustment does not aim to remove the irregular influences which may be present and therefore month-to-month movements may not be reliable indicators of underlying behaviour. To assist in interpreting the underlying behaviour, the ABS produces the trend series by smoothing the seasonally adjusted series to reduce the impact of the irregular component. For further information, see *A Guide to Interpreting Time Series - Monitoring Trends* (cat. no. 1349.0).

Further information on the terminology and other technical aspects associated with statistics from the Labour Force Survey can be found in the publication *Labour Force, Australia* (cat. no. 6202.0), which contains detailed Explanatory Notes, Standard Error information and a Glossary.

ACCESSIBILITY

Please see the Related Information tab for the list of products that are available from this collection.

What If

WHAT IF...? REVISIONS TO TREND ESTIMATES

EFFECT OF NEW SEASONALLY ADJUSTED ESTIMATES ON TREND ESTIMATES

TREND REVISIONS

Each time new seasonally adjusted estimates become available, trend estimates are revised. This revision is a combined result of the concurrent seasonal adjustment process and the application of surrogates of the Henderson average to the seasonally adjusted series (see paragraphs 25 to 33 of the Explanatory Notes).

The examples in the tables below show two illustrative scenarios and the consequent revisions to previous trend estimates of employment and the unemployment rate. The revisions in the scenarios below are only due to the use of surrogates of the Henderson average, as the impact of revision of the seasonally adjusted estimates can not be estimated in advance.

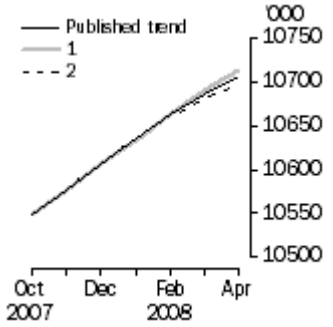
1 The May seasonally adjusted estimate is **higher** than the April estimate by:
0.26% for employment
1.80% for the unemployment rate

2 The May seasonally adjusted estimate is **lower** than the April estimate by:
0.26% for employment
1.80% for the unemployment rate

The percentage changes of 0.26% and 1.80% were chosen because they represent the

average absolute monthly percentage changes in employment and the unemployment rate respectively.

Employment



			WHAT IF NEXT MONTH'S SEASONALLY ADJUSTED ESTIMATE IS:	
		Trend as published	(1) 10 740.8 i.e. rises by 0.26%	(2) 10 685.1 i.e. falls by 0.26%
2008				
	January	10 635.1	10 634.9	10 635.8
	February	10 662.3	10 663.1	10 660.6
	March	10 686.5	10 689.2	10 681.0
	April	10 706.1	10 712.5	10 696.9

Unemployment Rate

			WHAT IF NEXT MONTH'S SEASONALLY ADJUSTED ESTIMATE IS:	
		Trend as published	(1) 4.3 i.e. rises by 1.80%	(2) 4.1 i.e. falls by 1.80%
2008				
	January	4.2	4.2	4.2
	February	4.1	4.1	4.1
	March	4.1	4.1	4.1
	April	4.1	4.1	4.1

Standard Errors

STANDARD ERRORS

STANDARD ERRORS

The estimates in this publication are based on information gained from the occupants of a sample survey of dwellings. Because the entire population is not surveyed, the published estimates are subject to sampling error. The most common way of quantifying such sampling error is to calculate the standard error for the published estimate or statistic. For more information, see paragraph 23 of the Explanatory Notes.

LEVEL ESTIMATES

To illustrate, let us say the published level estimate for employed persons aged 15-19 years is 700,000 and the associated standard error is 8,300. The standard error is then used to interpret the level estimate of 700,000. For instance, the standard error of 8,300 indicates that:

- There are approximately two chances in three that the real value falls within the range 691,700 to 708,300 (700,000 + or - 8,300)
- There are approximately nineteen chances in twenty that the real value falls within the range 683,400 to 716,600 (700,000 + or - 16,600).

The real value in this case is the result we would obtain if we could enumerate the total population.

The following table shows the standard errors for this month's level estimates.

										AUSTRALIA		
		NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Males	Females	Persons
Aged 15 years and over												
Employed												
	Full time	'000	20.1	19.6	14.6	6.5	9.2	2.7	3.8	2.2	24.8	17.5	30.1
	Part time	'000	13.6	12.3	9.4	4.6	6.3	2.0	1.3	1.5	9.8	15.8	19.2
	Total	'000	22.0	23.8	16.6	7.5	10.1	3.1	4.6	2.4	26.9	24.5	34.0
Unemployed													
	Looking for f/t work	'000	7.4	6.0	4.9	2.4	2.7	0.8	0.6	0.6	7.9	6.6	10.4
	Looking for p/t work	'000	4.4	4.3	2.8	1.8	1.6	0.6	0.4	0.6	3.9	5.4	6.8
	Total	'000	8.7	7.5	5.7	2.9	3.2	1.0	0.8	0.9	8.9	8.7	12.5
Labour force		'000	22.3	24.5	16.9	7.6	10.2	3.2	4.8	2.4	27.4	25.1	34.5
Not in labour force		'000	20.5	22.1	14.6	6.8	9.7	3.0	3.4	2.1	22.3	26.7	31.6
Unemployment rate													
	Looking for f/t work	pts	0.3	0.3	0.3	0.4	0.3	0.5	0.6	0.4	0.2	0.2	0.1
	Looking for p/t work	pts	0.4	0.5	0.4	0.7	0.5	0.7	1.5	1.1	0.4	0.2	0.2
	Total	pts	0.2	0.3	0.2	0.4	0.3	0.4	0.6	0.4	0.1	0.2	0.1
Participation rate		pts	0.4	0.6	0.5	0.6	0.6	0.8	3.0	0.9	0.3	0.3	0.2
Aged 15-19 years													
Employed													
	Full time	'000	3.6	2.6	2.8	1.2	1.8	0.5	0.4	0.4	4.6	3.5	5.4
	Part time	'000	4.7	4.0	3.7	1.6	2.1	0.6	0.4	0.6	5.1	5.7	7.4
	Total	'000	5.8	4.7	4.7	1.9	2.7	0.8	0.6	0.7	6.5	6.4	9.0
Unemployed													
	Looking for f/t work	'000	2.9	1.9	2.0	1.1	1.1	0.4	0.2	0.3	2.9	2.9	4.1
	Looking for p/t work	'000	2.6	2.7	1.7	1.1	1.0	0.3	0.2	0.5	2.7	3.3	4.3
	Total	'000	4.0	3.4	2.7	1.6	1.4	0.5	0.3	0.5	4.0	4.4	6.0
Labour force		'000	6.3	5.1	5.0	2.1	2.9	0.9	0.6	0.8	6.9	6.9	9.6
Not in labour force		'000	7.5	6.0	4.4	2.2	3.3	1.0	0.7	0.7	7.4	7.1	10.4
Unemployment rate													
	Looking for f/t work	pts	2.9	3.4	2.5	4.3	2.6	5.0	6.3	5.3	1.4	2.5	1.3
	Looking for p/t work	pts	1.5	1.8	1.3	2.6	1.8	2.6	3.9	4.2	1.1	1.0	0.7
	Total	pts	1.4	1.7	1.3	2.4	1.5	2.5	3.5	3.3	0.9	1.0	0.7
Participation rate		pts	1.3	1.5	1.7	2.0	1.9	2.5	4.0	3.3	0.9	1.0	0.7
Unemployment to population ratio - looking for f/t work		pts	0.6	0.5	0.7	1.0	0.7	1.1	1.5	1.1	0.4	0.4	0.3

MOVEMENT ESTIMATES

The following example illustrates how to use the standard error to interpret a movement estimate. Let us say that one month the published level estimate for females employed part-time in Australia is 1,890,000; the next month the published level estimate is 1,900,000 and the associated standard error for the movement estimate is 9,500. The standard error is then used to interpret the published movement estimate of 10,000. For instance, the standard error of 9,500 indicates that:

- There are approximately two chances in three that the real movement between the two months falls within the range 500 to 19,500 (10,000 + or - 9,500)
- There are approximately nineteen chances in twenty that the real movement falls within the range -9,000 to 29,000 (10,000 + or - 19,000).

The following table shows the standard errors for this month's movement estimates.

										AUSTRALIA		
		NSW	Vic.	Qld	SA	WA	Tas.	NT	ACT	Males	Females	Persons
Aged 15 years and over												
Employed												
Full time	'000	13.6	11.7	11.5	3.8	5.8	1.9	1.1	1.6	18.2	13.2	23.0
Part time	'000	8.4	7.7	7.1	2.7	3.7	1.3	0.6	1.0	8.0	12.0	14.3
Total	'000	16.2	14.2	15.2	5.3	7.3	2.3	1.3	1.9	20.0	18.0	27.9
Unemployed												
Looking for f/t work	'000	7.4	5.9	5.3	2.3	2.8	1.0	0.5	0.8	8.5	7.1	11.1
Looking for p/t work	'000	4.7	4.3	3.6	1.6	2.0	0.6	0.4	0.6	4.6	6.0	7.6
Total	'000	8.7	7.4	6.5	2.8	3.3	1.2	0.6	1.0	9.5	9.2	13.4
Labour force	'000	16.6	14.6	15.8	5.5	7.4	2.4	1.3	1.9	20.4	18.4	28.6
Not in labour force	'000	14.9	13.1	13.2	5.0	6.4	2.2	1.2	1.8	15.2	19.2	25.2
Unemployment rate												
Looking for f/t work	pts	0.3	0.3	0.3	0.4	0.3	0.6	0.6	0.5	0.2	0.2	0.1
Looking for p/t work	pts	0.5	0.5	0.5	0.7	0.5	0.8	1.8	1.2	0.4	0.3	0.2
Total	pts	0.3	0.3	0.3	0.4	0.3	0.5	0.7	0.5	0.2	0.2	0.1
Participation rate	pts	0.3	0.3	0.5	0.4	0.4	0.6	0.8	0.7	0.2	0.2	0.2
Aged 15-19 years												
Employed												
Full time	'000	2.9	2.2	2.8	0.9	1.5	0.4	0.2	0.4	4.1	3.2	4.7
Part time	'000	3.7	3.3	3.5	1.2	1.7	0.5	0.3	0.5	4.4	4.9	6.2
Total	'000	4.4	3.8	4.2	1.5	2.2	0.7	0.3	0.6	5.6	5.4	7.4
Unemployed												
Looking for f/t work	'000	2.9	2.0	2.2	1.0	1.1	0.5	0.2	0.3	3.2	3.1	4.5
Looking for p/t work	'000	3.3	2.8	2.3	1.1	1.2	0.3	0.2	0.5	3.3	3.7	4.9
Total	'000	4.2	3.5	3.2	1.5	1.6	0.6	0.3	0.6	4.5	4.7	6.4
Labour force	'000	4.7	4.1	4.4	1.6	2.3	0.7	0.4	0.6	5.8	5.8	7.8
Not in labour force	'000	4.8	4.2	3.7	1.5	2.1	0.8	0.5	0.6	5.8	5.7	7.7
Unemployment rate												
Looking for f/t work	pts	2.9	3.6	2.5	4.5	2.8	5.7	7.0	5.9	1.5	2.6	1.3
Looking for p/t work	pts	1.8	1.8	1.6	2.7	2.0	2.9	4.3	4.4	1.2	1.1	0.8
Total	pts	1.6	1.7	1.4	2.4	1.6	2.9	3.9	3.5	1.0	1.0	0.7
Participation rate	pts	1.0	1.2	1.5	1.5	1.5	2.1	2.4	2.6	0.8	0.8	0.5
Unemployment to population ratio - looking for f/t work	pts	0.6	0.6	0.7	1.0	0.7	1.3	1.4	1.3	0.4	0.4	0.3